

May 13, 2015



U.S. Department
of Transportation

East Building, PHH-30
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP 13977
(FIFTH REVISION)

EXPIRATION DATE: March 31, 2019

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Aethra Aviation Technologies
Farmingdale, NY
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of a non-DOT specification fiber reinforced plastic (FRP), full composite (FC), compressed gas cylinder which are used as components in aircraft. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
 - b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.
 - c. Party status will not be granted to this special permit.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.219(b)(1) in that life-saving appliances containing cylinders that do not comply with HMR are not authorized except as specified herein; §§ 172.203(a) and 172.301(c) in that the special permit number need not be noted on shipping papers or be

marked on packages of Life-saving appliances, self-inflating, UN2990, and § 173.302(a) in that a non-DOT specification cylinder containing a compressed gas is not authorized, except as specified herein.

5. BASIS: This special permit is based on the application of Aethra Aviation Technologies, dated April 28, 2015, submitted in accordance with § 107.109.
6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Compressed gas, n.o.s.	2.2	UN1956	N/A
Life-saving appliances, self inflating	9	UN2990	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packagings prescribed is a non-DOT specification fiber reinforced plastic (FRP), full composite (FC), compressed gas cylinder manufactured by Structural Composites Industries. The cylinders authorized under this special permit are identified in a design approval issued by the Federal Aviation Administration, New York Aircraft Certification Office on December 24, 2003 (see attachment 1).

b. TESTING - Each cylinder must be reinspected and hydrostatically retested at least once every three years in accordance with § 180.209(a) as prescribed for DOT 3HT cylinders, except that the rejection elastic expansion criterion does not apply, and permanent volumetric expansion must not exceed 5 percent of total volumetric expansion at test pressure. Retest dates must be steel stamped on the outer exposed metallic surface of the cylinder neck, or marked on a label securely affixed to the cylinder and overcoated with epoxy. Reheat treatment or repair of rejected cylinders is not authorized.

c. OPERATIONAL CONTROLS -

(1) This special permit covers only cylinders currently installed as part of an aircraft safety system, or in the possession of operators or end-users of the Slide or Slide/Raft Evacuation Systems identified in TABLE 1 of Attachment 1.

(2) The cylinders covered by this special permit must have been manufactured prior to December 31, 2003.

(3) The cylinders must be shipped as an integral part of the life-saving appliance or be packaged in accordance with § 173.301(a)(9).

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modification or change is made to the package or its contents and it is reoffered for transportation in conformance with this special permit and the HMR.

b. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.

c. At the first scheduled maintenance of the cylinder after receipt of the applicable Service Bulletin and marking materials from the special permit holder (Aethra Aviation Technologies), but not later than May 31, 2005, each cylinder must be marked as follows:

(1) **FAA APPROVED
LETTER DATED DECEMBER 24, 2003
TRANSPORT IN ACCORDANCE DOT-SP 13977
AFTER FIFTEEN YEARS FROM DATE OF MFG.
CONDEMN IN ACCORDANCE WITH
49 CFR 180.205(i)(1)**

(2) The marking "DOT-SP 8162-3000", which was in place on the cylinder at the time of manufacture, must be covered completely.

d. Until remarked as required by paragraph 8.c., the following packages may be offered for transportation and transported:

(1) Self inflating life-saving appliances (aircraft emergency escape slide assemblies) that conform to § 173.219 except that the nonflammable compressed gas is packaged in DOT-SP 8162 special permit cylinders that do not meet the requirements of the HMR; or

(2) Non-DOT specification cylinders, containing compressed gas N.O.S. listed in paragraph 6, marked DOT-SP 8162, that do not meet the E-8162 special permit. Each cylinder must be packaged in accordance with § 173.301(a)(9).

e. Each cylinder specified in this special permit has been manufactured under DOT-SP 8162 and has a marked service pressure of 3000 psig except that each cylinder has been charged up to 10 percent in excess of its marked service pressure.

f. No cylinder may be charged to more than 10% over the marked service pressure.

g. No cylinder is authorized 15 years after the date of manufacture marked on the cylinder.

h. Cylinders subjected to action of fire may not be used under the terms of this special permit.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, cargo aircraft only, and passenger-carrying aircraft.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel or aircraft used to transport packages covered by this special permit. The shipper must furnish a current copy of this special permit to the air carrier before or at the time the shipment is tendered. A copy of the special permit need not be provided

to the carrier or carried aboard the vessel or aircraft for materials offered for transportation or transported as Life-saving appliances, self-inflating, UN2990.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
 - o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
 - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)- "The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 Immediate notices of certain hazardous materials incidents, and 171.16 Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for Dr. Magdy El-Sibaie
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: kah